

Table 1: Modification Table

| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|-------------|---------------------|---------------------|----------|---|
| CC | S-DMS-10010 | 8415 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide capabilities to search and obtain data across DAACs. |
| CT | S-DMS-10010 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10020 | 8416 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall accept and execute Search Requests which require searching across DAACs. |
| CT | S-DMS-10020 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10030 | 8417 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall compare received Search Requests to its federated Schema to determine to which LIMs or Data Servers the Search Request must be forwarded and generate a Distributed Query Plan. |
| CT | S-DMS-10030 | | <u>B1</u> | | | | | | The DIMGR CI shall <u>determine which LIMs, Data Servers and Gateways are required in order to satisfy a search request and generate a Distributed Query Plan as a result.</u> |
| CC | S-DMS-10040 | 8418 | B0 | interface | incremental | unverified | test | 96-1363A | Upon determining which LIMs are required to complete a Search Request, the DIMGR CI shall send to the requisite LIMs the portions of the original Search Request which apply to them. |
| CT | S-DMS-10040 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10050 | 8419 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall monitor the progress of the Distributed Query Plan. |
| CT | S-DMS-10050 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10060 | 8420 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall compile and manage the results of the Distributed Query Plan for the client which initiated it. |
| CT | S-DMS-10060 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10090 | 8422 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall store, maintain and provide data management services for ECS federated Schema. |
| CT | S-DMS-10090 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10100 | 8423 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|-------------|---------------------|---------------------|----------|---|
| | | | | | | | | | abort any time-intensive operations. |
| CT | S-DMS-10100 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10110 | 8424 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to integrate partial results from those LIMs represented in its federated Schema into a complete Result Set. |
| CT | S-DMS-10110 | | <u>B1</u> | | | | | | The DIMGR CI shall provide the capability to integrate partial results from <u>the underlying LIMs</u> into a complete Result Set. |
| CC | S-DMS-10120 | 8425 | B0 | functional | incremental | unverified | test | 96-1363A | In the case of processing failures, upon restart the DIMGR CI shall complete all incomplete transactions without loss of data. |
| CT | S-DMS-10120 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10130 | 8426 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall maintain query log files. |
| CT | S-DMS-10130 | | <u>B1</u> | | | | | | The DIMGR CI shall, <u>for MSS, log events upon receipt and completion of search requests.</u> |
| CC | S-DMS-10140 | 12306 | B1 | functional | incremental | unverified | test | 97-0107A | The DIMGR CI shall provide a capability to report status of Search Requests submitted to it to MSS. |
| CT | S-DMS-10140 | | | | | | | | The DIMGR CI shall provide a capability <u>for its clients to obtain status of a query or a search request.</u> |
| CC | S-DMS-10150 | 8428 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall support revisions of its federated Schema following Schema changes in the LIMs represented in the DIM's federated Schema. |
| CT | S-DMS-10150 | | <u>B1</u> | | | | | | The DIMGR CI shall support revisions of its <u>LIMs</u> configuration following changes in the underlying <u>LIMs.</u> |
| CC | S-DMS-10160 | 8429 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall be able to receive the local Schema of LIMs in its federation from the LIM service. |
| CT | S-DMS-10160 | | <u>B1</u> | | | | | | The DIMGR CI shall <u>access the DDICT to obtain the collection's level attributes accessible through the underlying LIMs, Data Servers and Gateways.</u> |
| CC | S-DMS-10310 | 8443 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|-------------|---------------------|---------------------|----------|--|
| | | | | | | | | | search for Data Granules of EOSDIS data stored across DAACs for specific science disciplines. |
| CT | S-DMS-10310 | | <u>B1</u> | | | | | | The DIMGR CI shall provide the capability to return, as a result of a search request, data granules of EOSDIS data stored in the underlying Data Servers and Gateways. |
| CC | S-DMS-10330 | 8445 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall use the User Identifier for the user on whose behalf a Service Request is issued as the basis for access control decisions. |
| CT | S-DMS-10330 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10340 | 12309 | B1 | interface | incremental | unverified | test | 97-0107A | The DIMGR CI shall forward the user's User Identifier in any Service Requests that it sends to the external entities on behalf of that user.. |
| CT | S-DMS-10340 | | | | | | | | The DIMGR CI shall forward to LIMGRs the identification of the user on whose behalf a service request is being executed. |
| CC | S-DMS-10530 | 9616 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall send detected hardware and software fault information to MSS. |
| CT | S-DMS-10530 | | <u>B1</u> | | | | | | |
| | | | | | | | | | |
| CC | S-DMS-10540 | 9619 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide configuration management data such as software versions to MSS through managed process framework. |
| CT | S-DMS-10540 | | <u>B1</u> | | | | | | The DIMGR CI shall log the configuration management data or MSS. |
| CC | S-DMS-10550 | 9623 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall support the MSS in collecting Accounting Management Data by supplying resource utilization data. |
| CT | S-DMS-10550 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10556 | 8467 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide operations staff with the capability to distribute DIMGR CI utilization reports eletronicly or in hard copy or on electronic media. |
| CT | S-DMS-10556 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10560 | 9609 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall report Accountability |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|--------------------|---------------------|---------------------|----------|---|
| | | | | | | | | | Management Data (requests such as searches, browse requests, orders) to the MSS. |
| CT | S-DMS-10560 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10570 | 9627 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall collect Performance Management Data using the MSS managed object components and provide it to the MSS at configurable intervals and on demand. |
| CT | S-DMS-10570 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10580 | 9633 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall collect Security Management Data (such as rejected access to a service) and provide it to the MSS. |
| CT | S-DMS-10580 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10595 | 9663 | B0 | interface | | unverified | test | 96-1363A | The DIMGR CI shall log the startup of the DIMGR servers to MSS. |
| CT | S-DMS-10595 | | <u>B1</u> | | <u>incremental</u> | | | | |
| CC | S-DMS-10596 | 9664 | B0 | interface | | unverified | test | 96-1363A | The DIMGR CI shall log the shutdown of the DIMGR servers to MSS. |
| CT | S-DMS-10596 | | <u>B1</u> | | <u>incremental</u> | | | | |
| CC | S-DMS-10600 | 8472 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI data accesses shall be subject to read access control based on user privileges. |
| CT | S-DMS-10600 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10610 | 12311 | B1 | functional | incremental | unverified | test | 97-0107A | The DIMGR CI internal data base management queries shall be expressed in a structured query language |
| CT | S-DMS-10610 | | | | | | | | The DIMGR CI internal data base management queries to the DDICT CI shall be expressed in <u>SQL</u> . |
| CC | S-DMS-10650 | 12312 | B1 | functional | incremental | unverified | test | 97-0107A | The DIMGR CI shall initiate distributed data access and manipulation operations. |
| CT | S-DMS-10650 | | | | | | | | The DIMGR CI shall <u>accept service requests for services available at the underlying Science Data Servers and Gateways.</u> |
| CC | S-DMS-10660 | 8475 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability establish a session as the context for a series of Service Requests. |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|-------------|---------------------|---------------------|----------|---|
| CT | S-DMS-10660 | | <u>B1</u> | | | | | | The DIMGR CI shall provide the capability to establish a session as the context for a series of requests |
| CC | S-DMS-10690 | 8478 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to terminate an established client session. |
| CT | S-DMS-10690 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10700 | 8479 | B1 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to save the result of a Service Request Request for later reuse. |
| CT | S-DMS-10700 | | | | | | | | The DIMGR CI shall provide the capability to save the result of a <u>search</u> request for later reuse. |
| CC | S-DMS-10890 | 8487 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall support multiple concurrent sessions. |
| CT | S-DMS-10890 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10895 | 8488 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall support multiple service requests within a session. |
| CT | S-DMS-10895 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10900 | 8489 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide an application program interface for the submission of Service Requests. |
| CT | S-DMS-10900 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10910 | 8490 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide an application program interface for the submission of requests for administrative services. |
| CT | S-DMS-10910 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10915 | 8491 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall log the initiation of a session. |
| CT | S-DMS-10915 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10920 | 8492 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall log the termination of a session. |
| CT | S-DMS-10920 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10960 | 8495 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability for the operations staff to suspend all active sessions. |
| CT | S-DMS-10960 | | <u>B1</u> | | | | | | |
| CC | S-DMS-10990 | 8498 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall send Notifications to users |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|--------------------|---------------------|---------------------|----------|--|
| | | | | | | | | | via email in the event that a users's request or session is canceled by operations staff. |
| CT | S-DMS-10990 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11000 | 8499 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to restore a session after interruption. |
| CT | S-DMS-11000 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11010 | 9661 | B0 | interface | incremental | unverified | test | 96-1363A | The DIMGR CI shall log to MSS all Service requests initiated during a session. |
| CT | S-DMS-11010 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11011 | 9662 | B0 | interface | | unverified | test | 96-1363A | The DIMGR CI shall log the successful completion of each service request to MSS. |
| CT | S-DMS-11011 | | <u>B1</u> | | <u>incremental</u> | | | | |
| CC | S-DMS-11012 | 9665 | B0 | interface | | unverified | test | 96-1363A | The DIMGR CI shall log to MSS when a service request is activated from the queue. |
| CT | S-DMS-11012 | | <u>B1</u> | | <u>incremental</u> | | | | |
| CC | S-DMS-11013 | 9666 | B0 | interface | | unverified | test | 96-1363A | The DIMGR CI shall log to MSS when a service request has been successfully decomposed into its component requests. |
| CT | S-DMS-11013 | | <u>B1</u> | | <u>incremental</u> | | | | |
| CC | S-DMS-11017 | 9671 | B0 | interface | | unverified | test | 96-1363A | The DIMGR CI shall log to MSS when the results of the external requests have been integrated and status is about to be sent to the client program. |
| CT | S-DMS-11017 | | <u>B1</u> | | <u>incremental</u> | | | | |
| CC | S-DMS-11040 | 8503 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall log the termination of service requests. |
| CT | S-DMS-11040 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11050 | 8504 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall ensure that databases which are distributed and replicated provide synchronized data. |
| CT | S-DMS-11050 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11060 | 8505 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall forward commands to terminate a session to all servers which are a part of that session. |
| CT | S-DMS-11060 | | <u>B1</u> | | | | | | |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|-----------|---------------|------------|-------------|---------------------|---------------------|----------|--|
| CC | S-DMS-11070 | 8506 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall accept Subscriptions for DIM data. |
| CT | S-DMS-11070 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11080 | 9883 | B0 | functional | approved | unverified | test | 96-1363A | DIMGR CI mode-specific applications shall access data only for the mode in which the application is configured. |
| CT | S-DMS-11080 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11081 | 9884 | B0 | functional | approved | unverified | test | 96-1363A | The DIMGR CI shall include the mode identifier in activity log record entries for cost and accounting data. |
| CT | S-DMS-11081 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11084 | 9885 | B0 | functional | approved | unverified | test | 96-1363A | DIMGR CI mode-specific applications shall be capable of simultaneous execution in different modes on the same machine. |
| CT | S-DMS-11084 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11085 | 9886 | B0 | functional | approved | unverified | test | 96-1363A | DIMGR CI mode-specific applications shall be capable of simultaneous execution in different modes on different machines. |
| CT | S-DMS-11085 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11086 | 9887 | B0 | functional | approved | unverified | test | 96-1363A | DIMGR CI server applications shall register within their mode-associated namespace in the CSS name service. |
| CT | S-DMS-11086 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11087 | 9888 | B0 | functional | approved | unverified | test | 96-1363A | DIMGR CI client applications shall incorporate a mode identifier for CSS name service lookups. |
| CT | S-DMS-11087 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11088 | 9889 | B0 | functional | approved | unverified | test | 96-1363A | The DIMGR CI shall be capable of using simulated time values supplied by CSS when executing in a non-production mode. |
| CT | S-DMS-11088 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11089 | 9890 | B0 | functional | approved | unverified | test | 96-1363A | DIMGR CI mode-specific executables and scripts shall accept a specific mode only at startup. |
| CT | S-DMS-11089 | | <u>B1</u> | | | | | | |
| CC | S-DMS-11100 | 13821 | B0 | functional | approved | unverified | test/demo | 97-0553A | The DIMGR CI shall ensure that the following calendar transitions are handled completely and |

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| Level_4 | L4id | object_id | release | req_type | req_status | verification_ status | verification_ method | CCR | text |
|---------|-------------|-----------|-----------|----------|------------|-------------------------|-------------------------|-----|--|
| | | | | | | | | | accurately: a. New Year b. New Decade c. New Century d. Leap Year. |
| CT | S-DMS-11100 | | <u>B1</u> | | | | | | |
| EOT | | | | | | | | | |

Table 2: Delete Table

| Level_4 | L4id | Req_key | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|-------------|---------|---------|------------|-------------|---------------------|---------------------|----------|---|
| DEL | S-DMS-10170 | 8430 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall create a union of the Schemata it receives from LIMs in its federation. This union is a federated Schema. |
| DEL | S-DMS-10180 | 8431 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall not alter the Schemata it receives from any LIM in creating the federated Schema. |
| DEL | S-DMS-10190 | 8432 | B1 | interface | incremental | unverified | test | 96-1363A | The DIMGR-CI shall subscribe to the LIMs for any changes in LIM Schemata. |
| DEL | S-DMS-10200 | 8433 | B1 | interface | incremental | unverified | test | 96-1363A | The DIMGR-CI shall subscribe to the Advertising service for any additions or deletions of LIMs from its federation. |
| DEL | S-DMS-10210 | 8434 | B1 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall be able to add a LIM to its federation based on the subscription notifications it receives from the Advertising service.. |
| DEL | S-DMS-10220 | 8435 | B1 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall provide an interface whereby a LIM may be deleted from the federation based on the subscription notifications it receives from the Advertising service.. |
| DEL | S-DMS-10240 | 8436 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall provide a data administration utility for adding, deleting, modifying, and expanding an individual Schema. |
| DEL | S-DMS-10250 | 12307 | B1 | functional | incremental | unverified | test | 97-0107A | The distributed Schema-administrator shall maintain the federated Schema in the DIM. |
| DEL | S-DMS-10260 | 8438 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall provide an interface to the DIM-administrator-client whereby a LIM may be added to the federation. |
| DEL | S-DMS-10270 | 8439 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall provide an interface to the DIM-administrator-client whereby a LIM may be deleted from the federation. |
| DEL | S-DMS-10280 | 8440 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall provide an interface to the DIM-administrator-client whereby a LIM may be replaced in the federation. |
| DEL | S-DMS-10290 | 8441 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR-CI shall provide an interface to the DIM-administrator-client whereby LIM |

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| Level_4 | L4id | Req_key | release | req_type | req_status | verification_status | verification_method | CCR | text |
|---------|------------------------|---------|---------|------------|-------------|---------------------|---------------------|----------|--|
| | | | | | | | | | information may be retrieved from the federation. |
| DEL | S-DMS-10300 | 8442 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall provide the capability to find and retrieve a Schema entry from an distributed Schema. |
| DEL | S-DMS-10460 | 8458 | B0 | functional | incremental | unverified | test | 96-1363A | The DIMGR CI shall support the interruption of a database administrative or maintenance activity and its restart without loss of information. |

Table 3: Delink table

| RELEASE_TO_L4 | RBR_ID | L4_ID |
|---------------|------------|------------------------|
| DELINK | IMS-0560#B | S-DMS-10670 |
| DELINK | IMS-0560#B | S-DMS-10680 |
| DELINK | IMS-0560#B | S-DMS-10690 |
| DELINK | IMS-0560#B | S-DMS-10700 |
| DELINK | IMS-0575#B | S-DMS-10690 |
| DELINK | IMS-0575#B | S-DMS-10660 |
| DELINK | IMS-0575#B | S-DMS-10670 |
| DELINK | IMS-0575#B | S-DMS-10680 |

Table 4: Add link table

| RELEASE_TO_L4 | RBR_ID | L4_ID |
|---------------|------------|------------------------|
| LINK | IMS-0240#B | S-DMS-10120 |
| LINK | IMS-0100#B | S-DMS-10670 |
| LINK | IMS-0100#B | S-DMS-10680 |
| LINK | IMS-0100#B | S-DMS-10690 |
| LINK | IMS-0100#B | S-DMS-11060 |